

REMARKS

Summary of Office Action

Prior to entry of this amendment, Claims 17-30 were pending in this application. The Office Action objected to the Specification and FIG. 1 and FIG. 4 of the Drawings. Furthermore, the Office Action rejected Claims 17-30 under (1) 35 U.S.C. §112, first paragraph; (2) nonstatutory double patenting; and (3) 35 U.S.C. §103(a) in view of various combinations of references.

By this amendment, Claim 27 is amended. Hence, Claims 17-30 are presently pending in this application. In addition, the drawings are amended as indicated below.

OBJECTIONS

In the Specification

Paragraph 2 of the Office Action objected to the specification because of informalities, purportedly at page 4, line 17 and page 5, line 4. No action is required on the part of the Applicant with respect to this objection, for the specification is correct as originally filed.

The "credit information" referred to in the application at the locations cited above refers at least to "the credit card number, e-mail address, and other pertinent information" (page 4, lines 6-9). As to the Action's uncertainty as to "how merchant can provide credit information to IVS 106", methods for transmitting information from a merchant to a credit approval or fraud detection system were well-known in the art at the time of filing of the application. For example, use of credit/bank card readers by merchants to transmit the information by telephone lines using modems and dial-up connections was

widespread in face-to-face transactions. Furthermore, the practice of requesting from consumers e-mail addresses and other pertinent information for follow-on communication purposes was becoming popular in electronic commerce or Internet based transactions, as described in the cited Blonder et al. (U.S. Patent No. 5,708,422) reference at col. 6, lines 52-54. Knowledge of methods of transmission of consumer and other information from a merchant to another entity, such as over a network, was also well within the art.

Based on the foregoing discussion, it is submitted that the objection is overcome and, therefore, withdrawal of the objection is respectfully requested.

In the Drawings

Paragraph 3 of the Office Action objected to the drawings, specifically FIG. 1 and FIG. 4. Proposed drawing changes to FIG. 1 and FIG. 4 are submitted herewith to address the objections. Specifically, FIG. 1 is amended to include a legend "Prior Art", and FIG. 4 is amended to include reference numerals 302, 304 and 306. These amendments to the drawings merely conform the respective figures to the specification. Consequently, no new matter is added. It is submitted that the objection is overcome, and therefore, withdrawal of the objection is respectfully requested.

Furthermore, FIG. 3 is amended to conform with the specification. Thus, no new matter is added with this proposed change to FIG. 3.

In addition, formal drawings are submitted herewith, in response to the Notice of Draftperson's Patent Drawing Review, which was mailed with the aforementioned Office

Action. The formal versions of FIG. 1, FIG. 3 and FIG. 4 include the changes proposed above.

REJECTIONS NOT BASED ON PRIOR ART

Rejections under 35 U.S.C. §112

In paragraph 5 of the Office Action, Claims 17-30 were rejected under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter which was not described in the specification in a way to enable one skilled in the art to make or use the invention. Applicant respectfully disagrees and traverses this rejection of Claims 17-30.

First, it is noted that the enablement requirement of § 112 is relative to “one of ordinary skill in the art to which it pertains.” The U.S. Court of Appeals for the Federal Circuit maintains that “[t]he person of ordinary skill is a hypothetical person who is presumed to be *aware of all the pertinent prior art.*” *Custom Accessories Inc. v. Jeffrey-Allan Indus.*, 807 F.2d 955, 1 USPQ 2d 1196, 1201 (Fed. Cir. 1986) (emphasis added). Hence, one skilled in the art of fraud detection is presumed to have knowledge of various consumer information verification methodologies that were known in the art at the time of filing the application. Thus, based on a thorough reading of the application, and the knowledge presumed of one of skill in the art, the application does enable one skilled in the relevant art to make and/or use the invention.

Second, Applicant recognizes that the specification does not describe all possible implementation details. However, a patent application is not required to describe all implementation details or provide a manufacturing blueprint in order to be enabling to one skilled in the pertinent art. Details regarding implementation of various features

claimed in the application are a matter of choice to one practicing the invention embodied in the application.

It is a commonly understood concept in patent law, as stated by the CCPA, that “[n]ot every last detail is to be described, else patent specifications would turn into production specifications, which they were never intended to be.” *In re Bay*, 309 F.2d, 135 USPQ 311, 316 (C.C.P.A. 1962). Therefore, it is respectfully submitted that the absence of all conceivable specific implementation details does not constitute proper grounds for an enablement rejection when such details are within the knowledge of one skilled in the art. Furthermore, the level of skill in this field is high. Therefore, fewer implementation details can be provided in the application and the application still enables one skilled in this field to make and/or use the invention.

Based on the foregoing general discussion, withdrawal of the rejection of Claims 17-30 is respectfully requested.

Additionally, the Office Action refers to Claims 17, 24 and 28-30 with respect to various features, which are each addressed in turn below.

(1) “verifying the credit card information based on a consistency check...” (Emphasis added). The language of Claim 17 clearly recites upon what information the consistency check is based, thus enabling one skilled in the art to make and use the invention with respect to this feature. Specifically, Claim 17 indicates that credit card information is verified “based upon a consistency check that determines whether the *credit card information matches the consumer.*” (Emphasis added). Further, Claim 17 indicates that the *credit card information* associated with a consumer “identifies the credit card to be used in the transaction”. Hence, logically the consistency check is based on consistency between information identifying the credit card used in the transaction

(credit card information) and information identifying the consumer who is using the credit card for the transaction. That is, the consumer using the credit card for the transaction is checked against the owner of record of the credit card. Clearly, the claim language alone enables one of skill in the art to practice the embodiment of the invention with respect to comparing parameters in the context of the consistency check feature. Coupling the claim language with the extensive knowledge presumed of one skilled in this art provides even stronger evidence that this feature is enabled.

(2) “verifying the credit card information based upon a history check...”

(Emphasis added) The language of Claim 17 clearly recites upon what information the history check is based, thus enabling one skilled in the art to make and use the invention with respect to this feature. Specifically, Claim 17 indicates that credit card information is verified “based upon a history check that determines whether the *credit card information* is consistent with the *transaction information*.” (Emphasis added). Further, Claim 17 indicates that the *credit card information* associated with a consumer “identifies the credit card to be used in the transaction”, and that the *transaction information* “identifies the consumer and the product, including an Internet address of the consumer.” Hence, logically the consistency check is based on consistency between information identifying the credit card used in the transaction (credit card information) and information identifying the consumer and the product, including an Internet address of the consumer (transaction information). Clearly, the claim language alone enables one of skill in the art to practice the embodiment of the invention with respect to comparing parameters in the context of the consistency check.

(3) “creating and storing a fraud score value based on the verifying steps...”

The Action refers to teachings in the specification with respect to weighting parameters and alleges that the specification does not disclose what weights should be allocated to particular parameters and that the method of allocating weights is unclear. First, this cited Claim 17 feature is not a step of weighting the parameters, so the allegation is not on point. Second, if the allegation was on point (e.g., in reference to Claims 21 and 24, which comprise a “weighting” feature), the specification clearly states that different parameters are weighted “dependent upon the particular credit card transaction” (page 5 line 23 through page 6 line 1). Additionally, several examples of weighting the parameters are provided in the specification at page 6 lines 1-7.

Next, the Action alleges that it is not clear how fraudulent scores will be calculated in that the specification does not disclose an algorithm to obtain the fraudulent scores. An algorithm for creating fraud scores is not what is claimed. Many different algorithms are known in the art and could be utilized to create a fraud score value based on the various verifying steps, in implementing the embodiment of Claim 17. Choosing an algorithm is an implementation detail that one skilled in the pertinent art is enabled to perform based on the specification.

Finally, the Action alleges that “storing is not disclosed.” Knowledge with respect to storing data, such as a fraud score, is clearly well within the art. For example, electronic means of storing data, such as in a computer memory, are commonly known and understood in any pertinent art. Furthermore, the depiction of databases 222, 224 in FIG. 3 implicitly discloses storing, because all those of skill in this art know that use of a database involves storing data.

Based on the foregoing discussion, the subject matter of Claims 17-30 is described in the specification in a manner that enables one skilled in the art to which it pertains to make or use the invention as embodied in the referenced claims. Therefore, the rejection under 35 U.S.C. §112, first paragraph, is improper and cannot stand. Withdrawal of the rejection of Claim 17-30 on this basis is respectfully requested.

In paragraph 6 of the Office Action, Claim 27 was rejected under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter which was not described in the specification in a way to reasonably convey to one skilled in the art that the inventor was in possession of the claimed invention at the time of filing. The Action calls attention to an inconsistency in the application wherein the specification and drawings disclose constructing a map of credit card transactions, not of credit card numbers, as recited in Claim 27. Claim 27 is amended herein to correct this inconsistency of terms between the specification and the claims. Therefore, withdrawal of the rejection of Claim 27 on this basis is requested.

Rejections under double patenting

Paragraph 8 of the Office Action rejects Claims 17-30 under obviousness-type nonstatutory double patenting as being unpatentable over Claim 1 of commonly owned U.S. Patent No. 6,029,154. Applicant disagrees with this rejection, but notes that the rejection may be overcome by filing a terminal disclaimer under 37 C.F.R. §1.321(c). Applicant defers further action regarding a terminal disclaimer until allowance of the claims, at which time a terminal disclaimer will be filed.

REJECTIONS BASED ON PRIOR ART

Rejections under 35 U.S.C. §103(a)

Paragraph 10 of the Office Action rejected Claims 17-30 under 35 U.S.C. §103(a) as allegedly unpatentable over Wallace (U.S. Patent No. 5,988,497) in view of Blonder et al. (“Blonder”; U.S. Patent No. 5,708,422), further in view of Hanagandi et al. (“Density-based clustering and radial basis function modeling to generate credit card fraud scores”; *see* Office Action for publication reference). Applicant respectfully traverses this rejection on the basis that prima facie obviousness has not been established.

With respect to Claim 17, the Office Action is correct that “Wallace fails to teach inclusion of an Internet address to be included in the credit card information to be used to check the association of this Internet address with the physical addresses of the other transactions.” However, the allegation that “[i]n view of Blonder it would have been obvious ... to recognize the popularity of email or electronic communication and to include this as a parameter of information in Wallace to check the association of email or Internet address with the physical address of the consumer” is incorrect.

First, Wallace does not teach use of criteria such as email addresses, shipping addresses, or any other criteria, to “detect the fraudulent credit-card transactions as suggested by Wallace” as alleged in the Action. Wallace describes the use of various threshold criteria or conditions to *determine whether the credit card transaction requires a second tier of validation*, thus prompting the card user for a variable PIN generated by a user-held device (col. 2, lines 1-29).

Next, as the Action admits, Blonder “teaches using email or Internet addresses to *communicate with the card owner* to alert him about a credit-card transaction” (emphasis

added). This statement is correct. Blonder does not teach any other use of email or Internet addresses. Hence, the “teachings” of Blonder with respect to use of email and Internet addresses do not rise to the level of teaching required to establish and support a valid prima facie obviousness rejection. Even if Blonder actually did sufficiently teach or suggest the use of email and Internet addresses as claimed in the application, Wallace would not use the addresses to verify credit card information as claimed, but to trigger a second tier of validation as described above.

Furthermore, the statement in the Action that an “[i]ndication in Wallace to check the *change of [shipping] addresses* or the like makes it a prima-facie obviousness to include email address along with shipping address...” (emphasis added), likewise, does not support a prima facie obviousness rejection. Merely finding a reference in an arguably related art (though Applicant is not conceding on this issue), which refers to use of email addresses for a completely different function than does the application, does not meet the threshold reasoning and substantiation required of a prima facie case of obviousness.

In fact, Blonder “teaches away” from use with Wallace because Blonder teaches use of email only for communication purposes, not as a parameter for verifying credit card information. Furthermore, Blonder discloses “[a]n automated system for *alerting a customer* that a transaction is being initiated and for *authorizing the transaction based on a confirmation/approval by the customer* thereto” (Abstract; emphasis added). In contrast, Wallace discloses “a dynamic validation process that authenticates credit transactions on multiple tiers” (col. 1, lines 59-61), none of which involves alerting a credit card holder to authorize or approve a transaction. Hence, there is no motivation or

suggestion to combine these references that is strong enough, at the time of filing, to overcome the teaching away of Blonder from Wallace.

As the CAFC has stated, “[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988). It appears that hindsight reconstruction is being relied upon in the Action to “use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious”, *in re Fritch*, 972 F.2d 1260, 23 USPQ 2d 1780 (Fed. Cir. 1992), which is held impermissible.

Next, the Action essentially states that combining Wallace and Blonder to check the association of email or Internet addresses with the physical address of the consumer “would provide an important parameter to detect the fraudulent credit-card transactions” Applicant agrees that checking the association of email or Internet addresses with physical addresses is an important parameter to detect fraudulent transactions; that rationale was recognized by Applicant and contributed in part to the invention. However, it would not have been obvious to apply fraud detection methodology to electronic transactions over the Internet, but it is not obvious to integrate the specific Internet identification verification system (IIDVS 208 of FIG. 2), as described, into an integrated verification system (IVS 106 of FIG. 1) for transactions over the Internet. Indeed, the failure of Wallace to teach use of Internet addresses in a credit card verification system for fraud detection is powerful evidence that Claim 17 would not have been obvious to one skilled in the pertinent art at the time of filing.

The Hanagandi reference is relied upon by the Action for a teaching regarding weighting each value of the plurality of parameters and creating a fraud score value based on the verifying steps. This feature is not present in independent Claim 17, so discussion of this feature is provided below with respect to dependent Claim 21.

For at least the foregoing reasons, a prima facie case of obviousness has not been established and, therefore, an obviousness rejection of Claim 17 cannot stand based on the references of record. Withdrawal of the rejection of Claim 17 is respectfully requested.

Claims 18-23 depend directly or indirectly from Claim 17, and are thus patentable over the prior art of record for at least the same reasons presented above in reference to Claim 17. Therefore, withdrawal of the rejection of Claim 18-23 is respectfully requested.

Furthermore, each of the dependent claims also recites at least one additional feature that independently renders such dependent claim non-obvious in view of the art of record.

For example, Claim 21 recites the feature of "weighting each of the verifying steps according to an importance as determined by the merchant of each verifying step to the credit card transaction." The verifying steps are related to a consistency check, a history check, an automatic verification system, and an Internet identification system. Hence, a given merchant can apply different weights to the different verification steps or checks based on the importance of each check to the given merchant. This feature is not taught, disclosed or suggested in the references of record.

Paragraph 10 of the Office Action alleges that Hanagandi discloses the use of weighting, and Applicant assumes that this reference to weighting in the Action is directed at Claim 21. Hanagandi discusses the use of weighted summations as part of a Radial Basis Function Network model that utilizes multidimensional Gaussian basis functions to determine a hidden layer response and, it appears, to ultimately generate credit card fraud scores (page 247, col. 2). However, the present application is not claiming the mathematical concept of weighted summations nor the use of weighted summations in a fraud risk detection model or system. The weighting of various verifying steps in Claim 21 is *determined by a merchant according to an importance of each verifying step*. Hanagandi does not teach, disclose or suggest having a merchant determine what weight values are used. In fact, Hanagandi teaches determination of weights based on linear regression analysis, which teaches away from the feature claimed in Claim 21. Therefore, Claim 21 is patentable over the art of record and withdrawal of the rejection of Claim 21 is again requested.

Claim 24 is an independent claim that includes steps of (1) verifying credit card information based on an Internet identification system that determines consistency between a physical address and an Internet address associated with a consumer in a transaction; and (2) receiving from a merchant weight values associated with each of a plurality of mechanisms for detecting fraud in a credit card transaction. Each of these features has been discussed above in reference to Claim 17 and Claim 21, respectively. Thus, based on the foregoing reasons, the references of record do not teach, disclose, or suggest these features. Therefore, a prima facie case of obviousness is not established

and Claim 24 is patentable over the references of record. Withdrawal of the rejection of Claim 24 is respectfully requested.

Claims 25-27 depend directly or indirectly from Claim 24, and are thus patentable over the prior art of record for at least the same reasons presented above in reference to Claim 24. Therefore, withdrawal of the rejection of Claim 25-27 is respectfully requested.

Furthermore, each of these dependent claims also recites at least one additional feature that independently renders such dependent claim non-obvious in view of the art of record. However, due to the fundamental differences between the references of record and independent Claim 24 already described, further elaboration on the additional patentable features of Claims 25-27 is unnecessary.

With respect to Claim 27, paragraph 11 of the Office Action further contends that the Richardson reference teaches the construction and use of maps of credit card transactions. However, Richardson does not teach, disclose or suggest constructing a map of credit card transactions that *utilize an Internet address* that is identified with the transaction. Furthermore, as discussed above in reference to Claim 17, none of the references of record teach, suggest or make obvious the use of Internet addresses in this manner. Therefore, Claim 27 would not have been obvious in view of the references of record. Withdrawal of the rejection of Claim 27 is requested.

Claim 28 is a system claim and Claim 29 is a computer-readable medium claim, both of which comprise features similar to method Claim 17. Therefore, Claims 28 and 29 are patentable over the references of record for at least the same reasons given above for Claim 17. Withdrawal of the rejections of Claims 28 and 29 is respectfully requested.

Claim 30 is an independent claim that includes use of an Internet verification system to verify credit card information by determining whether a physical address specified in transaction information is consistent with other physical addresses specified in a database of transaction information for other transactions associated with the consumer's Internet address. As shown above in reference to Claim 17, the references of record do not teach, disclose, suggest or make obvious the use of an Internet verification system that functions with respect to physical and Internet addresses, as described and claimed in the application. Hence, Claim 30 is also patentable over the references of record for at least the same reasons as Claim 17 and, therefore, withdrawal of the rejection of Claim 30 is respectfully requested.

CONCLUSION

For at least the reasons indicated above, Applicants submit that all the pending claims (17-30) present subject matter that is patentable over the references of record, including that which was cited but not applied, and are in condition for allowance. Therefore, Applicants respectfully request timely issuance of a Notice of Allowance. If the Examiner has questions regarding this case, the Examiner is invited to contact Applicant's undersigned representative.

To the extent necessary, a petition for an extension of time under 37 C.F.R. §1.136 is hereby made. Please charge any shortages in fees due in connection with the filing of this paper, including extension of time fees, or credit any overages to Deposit Account No. 50-1302.

Respectfully Submitted,

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on 7/23/02 by Chae Fung

"VERSION WITH MARKINGS TO SHOW CHANGES MADE."

In the Claims:

1 27. (Amended) A method as recited in claim 24 wherein the steps of creating and
2 storing further include:
3 obtaining other transactions utilizing an Internet address that is identified with the
4 credit card transaction;
5 constructing a map of credit card [numbers] transactions based upon the other
6 transactions;
7 utilizing the map of credit card [numbers] transactions to determine if the credit
8 card transaction is valid.